No. 200600245

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Washington State University Research Foundation

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

WHEAT, COMMON

'Bauermeister'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this sixth day of December, in the year two thousand and six.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

REPRODUCE LOCALLY. *Include form number and date on all reproductions* — Form Approved - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER
Washington State University Research Foundation

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME
WA007939

3. VARIETY NAME
Bauermeister

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*
1610 NE Eastgate Blvd.
Pullman, WA 99163

5. TELEPHONE *(include area code)*
509-335-4363

6. FAX *(include area code)*
509-335-7237

FOR OFFICIAL USE ONLY

PVPO NUMBER
20060245

FILING DATE
July 24, 2006

7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.)*
Corporation

8. IF INCORPORATED, GIVE STATE OF INCORPORATION
WA

9. DATE OF INCORPORATION
July 7, 1939

10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. *(First person listed will receive all papers)*
Dr. Keith Jones, Director
Washington State University Research Foundation
1610 NE Eastgate Blvd.
Pullman, WA 99163

FEES RECEIVED

FILING AND EXAMINATION FEES:
$ 4382.00
DATE 7/24/2006

CERTIFICATION FEE:
$ 768.00
DATE 11/21/2006

11. TELEPHONE (Include area code)
509-335-4363

12. FAX (Include area code)
509-335-7237

13. E-MAIL
jonesk@wsu.edu

14. CROP KIND *(Common Name)*
Winter wheat

16. FAMILY NAME *(Botanical)*
Gramineae

15. GENUS AND SPECIES NAME OF CROP
Triticum aestivum L.

17. IS THE VARIETY A FIRST GENERATION HYBRID?
☐ YES ☑ NO

18. DOES THE VARIETY CONTAIN ANY TRANSGENES? (***OPTIONAL***)
☐ YES ☑ NO
IF SO, PLEASE GIVE THE ASSIGNED USDA-APHIS REFERENCE NUMBER FOR THE APPROVED PETITION TO DEREGULATE THE GENETICALLY MODIFIED PLANT FOR COMMERICALIZATION. _____

19. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED
(Follow instructions on reverse)

a. ☑ Exhibit A. Origin and Breeding History of the Variety
b. ☑ Exhibit B. Statement of Distinctness
c. ☑ Exhibit C. Objective Description of Variety
d. ☑ Exhibit D. Additional Description of the Variety *(Optional)*
e. ☑ Exhibit E. Statement of the Basis of the Owner's Ownership
f. ☑ Exhibit F. Declaration Regarding Deposit
g. ☑ Voucher Sample *(3,000 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)*
g. ☑ Filing and Examination Fee ($4,382), made payable to "Treasurer of the United States" *(Mail to the Plant Variety Protection Office)*

20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act)*
☐ YES *(If "yes", answer items 21 and 22 below)* ☑ NO *(If "no", go to item 23)*

21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES?
☐ YES ☐ NO
IF YES, WHICH CLASSES? ☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

22. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☐ YES ☐ NO
IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS.
☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED
(If additional explanation is necessary, please use the space indicated on the reverse.)

23. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES?
☑ YES ☐ NO
IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. *(Please use space indicated on reverse.)*

24. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT *(PLANT BREEDER'S RIGHT OR PATENT)*?
☐ YES ☑ NO
IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. *(Please use space indicated on reverse.)*

25. The owners declare that a viable sample of basic seed of the variety has been furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER		SIGNATURE OF OWNER	
Keith Jones			
NAME *(Please print or type)*		NAME *(Please print or type)*	
Dr. Keith Jones			
CAPACITY OR TITLE	DATE	CAPACITY OR TITLE	DATE
Director, Washington State University Research Foundation	20 July 2006		

(See reverse for instructions and information collection burden statement)

ST-470 (02-06) designed by the Plant Variety Protection Office using Word 2003.

20060245

GENERAL INSTRUCTIONS: To be effectively filed with the Plant Variety Protection Office (PVPO), **ALL** of the following items must be **received** in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E, F; (3) for a tuber reproduced variety, verification that a viable *(in the sense that it will reproduce an entire plant)* tissue culture will be deposited and maintained in an approved public repository; and (4) payment by credit card or check drawn on a U.S. bank for $4,382 ($518 filing fee and $3,864 examination fee), payable to "Treasurer of the United States" *(See Section 97.6 of the Regulations and Rules of Practice).* **NEW:** With the application for a seed reproduced variety **or by direct deposit soon after filing**, the applicant must provide at least 3,000 viable untreated seeds of the variety *per se*, and for a hybrid variety at least 3,000 untreated seeds of each line necessary to **reproduce** the variety. Partial applications will be held in the PVPO for not more than 90 days; then returned to the applicant as un-filed. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a payment by credit card or check payable to "Treasurer of the United States" in the amount of $768 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. *(See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)*

Plant Variety Protection Office
Telephone: (301) 504-5518 **FAX:** (301) 504-5291
General E-mail: PVPOmail@usda.gov
Homepage: http://www.ams.usda.gov/science/pvpo/PVPindex.htm

SPECIFIC INSTRUCTIONS:
To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and **provide evidence** that the permanent name of the application variety (even if it is a parental, inbred line) has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: U.S. Department of Agriculture, Agricultural Marketing Service, Livestock and Seed Programs, **Seed Regulatory and Testing Branch**, 801 Summit Crossing Place, Suite C, Gastonia, North Carolina 28054-2193 Telephone: (704) 810-8870. http://www.ams.usda.gov/lsg/seed.htm.

ITEM

19a. Give:
(1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
(2) the details of subsequent stages of selection and multiplication;
(3) evidence of uniformity and stability; and
(4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified

19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:

(1) identify these varieties and state all differences objectively;
(2) attach replicated statistical data for characters expressed numerically and demonstrate that these are clear differences; and
(3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.

19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.

19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, *etc.*

19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.

20. If "Yes" is specified *(seed of this variety be sold by variety name only, as a class of certified seed)*, the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. *(See Regulations and Rules of Practice, Section 97.103).*

23. *See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.*

24. *See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.*

22. CONTINUED FROM FRONT *(Please provide a statement as to the limitation and sequence of generations that may be certified.)*

23. CONTINUED FROM FRONT *(Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)*

Foundation seed of Bauermeister was sold on 9/21/05 by the Washington State Crop Improvement Association.

24. CONTINUED FROM FRONT *(Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)*

EXHIBIT A – BREEDING HISTORY

'Bauermeister'

1. Genealogy: Bauermeister 'TAM200' (PI 578255)/3*'Eltan' (PI 536994)

2. Stages of Selection and Multiplication:
1995 - 1997: Original cross and subsequent backcrosses were made in the Washington State University (WSU) Wheat Plant Growth Center. Seed from each BC_2F_1 plant was used to establish a BC_2F_2 field plot.

1998: BC_2F_2 single plots; WSU research land; selection of plots for advancement based on general adaptation and seed color.

1999: BC_2F_3 single plots; WSU research land; selection of plots for advancement based on general adaptation, seed color, maturity, disease resistance, grain yield, test weight, and milling/baking quality.

2000: BC_2F_4 replicated plots; WSU research land; selection of plots for advancement based on general adaptation, seed color, maturity, disease resistance, grain yield, test weight, and milling/baking quality.

2001: BC_2F_5 replicated plots (tested as J981107); replicated yield trial at multiple locations in Washington State; randomly selected 100 single spikes from selected plots based on general adaptation, pant height, maturity, disease resistance, grain yield and test weight.

2002: BC_2F_6 replicated plots; replicated yield trial at multiple locations in Washington State; selection based on appropriate plant height, maturity, field resistance to stripe rust and foot rot, test weight, grain yield, and milling/baking quality.

BC_2F_6 head rows: WSU research land; head rows bulk harvested and seed hardness (AACC, Method 55-31) and color was determined for each head row. BC_2F_7 seed from head rows that were hard (> 70 single kernel hardness) and red were then bulked for each head row; no variants were observed within the rows.

2003: BC_2F_7 WSU Commercial Variety Trial (tested as WA007939); replicated yield trial at multiple locations in Washington State; selection based on appropriate plant height, maturity, field resistance to stripe rust and foot rot, test weight, grain yield, and milling/baking quality.

2004: $BC_2F_{7:8}$ WSU Commercial Variety Trial (tested as WA007939); replicated yield trial at multiple locations in Washington State; no variants were observed within the plot.

Individual $BC_2F_{7:8}$ heads (2000) of WA007939 were hand threshed and separately planted in head rows in the fall of 2003 with irrigation in Othello, WA for Breeder seed production. Breeder seed was bulk harvested from a reselection of the head row block,

based on phenotypic uniformity, maturity and resistance to disease in August 2004 and planted in October 2004 for Foundation seed ($BC_2F_{7:9}$) production; non-conforming rows (<10%) were removed prior to harvest.

2005: WA007939 approved for release as the cultivar 'Bauermeister': PI 634717

3. Evidence of Uniformity and Stability:

Except as noted below, Bauermeister has been observed to be stable and uniform with respect to plant morphology since 1998 as a BC_2F_1-derived line. This represents seven generations (1998- 2005) through which this stability and uniformity have been observed. Based on evaluations of Breeder and Foundation seed lots, Bauermeister may contain a naturally occurring variant of up to a total of 20 white seeds in one pound of seed (0.17%). In addition to the previously mention variant the following observation may be made: (1) height variation (2" to 10" taller) may occur at the rate of 1 in 10,000 (0.01%) for heads that are otherwise typical of this variety. Height variation will be noticeable under higher yielding environments. (2) awn length may be variable (awnletted to normal). (3) awn color (red or tan).

These variants described are distinct within the variety and are stable and predictable with a degree of reliability comparable to other varieties of the same kind, and within recognized tolerances when the variety is reproduced or reconstructed and was originally part of the variety when released.

4. Variants during reproduction:

Based on evaluations of experimental, Breeder and Foundation seed lots, no variants other than those noted previously were observed in Bauermeister. Aberrant progeny are rogued from seedstock fields to ensure continued uniformity and stability, but they will continue to occur in every generation.

Exhibit B. Statement of Distinctness 200600245

Bauermeister is most similar to Hatton and Finley for hard red winter wheat production in eastern Washington State.

A. Agronomic Characteristics

Heading date and plant height data for Bauermeister, Finley and Hatton are described below. Number of plants used: 4 replications of 10 plants from each trial (240 plants for each variety overall).

1. Analysis of variance combined over locations indicates that Bauermeister has a heading date later than Finley (mean = 3.17 days) and Hatton (mean = 1.88 days), with an LSD of 0.42 (prob. 0.05) under Washington State field conditions. Data for each location as well as over locations are shown in Table A1.
2. Analysis of variance combined over locations indicates that Bauermeister is shorter than Finley (mean = 19.79 cm) and Hatton (mean = 14.28 cm), with an LSD of 3.83 (prob. 0.05) under Washington State field conditions. Data for each location as well as over locations are shown in table A1.

Table A1. Heading date and height (cm) of Bauermeister, Finley and Hatton in commercial variety trials at 6 locations in Washington State in crop year 2004.

		Location						
Planting/Harvest Dates		247/224	241/203	280/216	254/211	238/223	247/224	
Trait	Variety	Pullman	Lind	Walla Walla	Ritzville	St. Andrews	Almira	Mean
Heading (Day of Year)	Bauermeister	169.50	140.25	142.25	143.50	157.25	166.50	153.21
	Finley	165.50	137.00	139.75	141.00	152.50	164.50	150.04
	Hatton	167.00	138.50	141.00	141.50	154.25	165.25	151.33
	MEAN	167.33	138.75	141.00	142.00	154.67	165.42	151.53
	LSD (0.05)	1.65	1.50	0.83	0.79	1.10	0.89	0.42
	SD	2.02	1.86	1.28	1.28	2.57	1.16	11.88
	CV	0.72	0.79	0.42	0.41	0.51	0.39	0.56
Height (cm)	Bauermeister	97.79	81.92	104.78	83.19	90.81	98.43	92.82
	Finley	125.73	92.71	127.00	106.68	106.05	117.48	112.61
	Hatton	121.92	93.98	122.56	97.16	97.79	109.22	107.10
	MEAN	115.15	89.54	118.11	95.67	98.21	108.37	104.18
	LSD (0.05)	5.70	8.16	4.90	4.54	22.34	7.47	3.83
	SD	13.67	8.11	10.42	10.85	16.89	9.77	15.61
	CV	3.60	6.64	3.02	3.46	16.55	5.01	7.54

*Combined analysis of variance was conducted after the assumptions for combing data over locations were met (variances were homogenous and the data was distributed normally).

B. Genetic Characteristics

The uniqueness of Bauermeister as compared to Finley and Hatton is confirmed by two microsatellites: Xgwm304 and Xgwm169 (Figure 1A, 1B).

References:

Röder, MS, V Korzun, K Wendehake, J Plaschke, M-H Tixier, P. Leroy, and MW Ganal. 1998. A microsatellite map of wheat. Genetics 149:2007-2023.

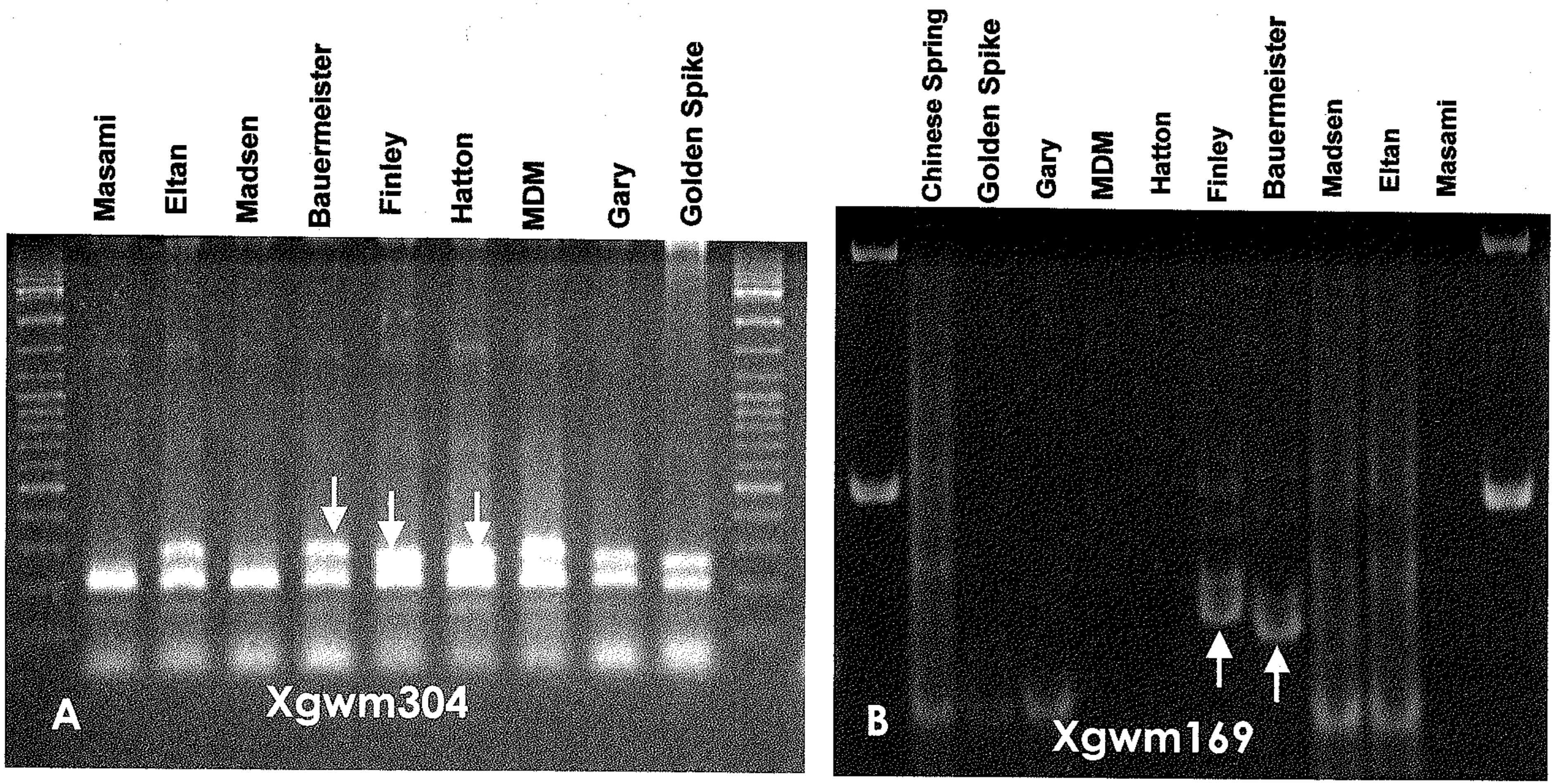

Figure 1. Nucleotide sequence distinctiveness of Bauermeister from cultivars Finley and Hatton, as evidenced by microsatellite DNA markers.

A) In PCR using primers for marker Xgwm304, Bauermeister produces a 290 bp fragment (yellow arrow) that is of higher molecular molecular weight than the fragment generated in samples of Finley and Hatton (yellow arrow).

B) PCR with primers for marker Xgwm169 produces a 220 bp fragment in Bauermeister not present in Hatton or Finley.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

Exhibit C

OBJECTIVE DESCRIPTION OF VARIETY
Wheat (*Triticum* spp.)

NAME OF APPLICANT (S)	TEMPORARY OR EXPERIMENTAL DESIGNATION	VARIETY NAME
Washington State University	WA007939	Bauermeister

ADDRESS *(Street and No. or RD No., City, State, Zip Code and Country)*
Dr. Keith Jones, Director
Washington State Univesity Research Foundation
1610 NE Eastgate Blvd.
Pullman, WA 99163

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PVPO NUMBER
20060245

PLEASE READ ALL INSTRUCTIONS CAREFULLY:

Place the appropriate number that describes the varietal character of this variety in the boxes below. Place a zero in the first box (e.g., [0][9][9] or [0][9]) when number is either 99 or less or 9 or less respectively. Data for quantitative plant characters should be based on a minimum of 100 plants. Comparative data should be determined from varieties entered in the same trial. Royal Horticultural Society or any recognized color standard may be used to determine plant colors; designate system used: _____. Please answer all questions for your variety; lack of response may delay progress of your application.

1. KIND:

[1]
1 = Common
2 = Durum
3 = Club
4 = Other (Specify) _____

2. VERNALIZATION:

[2]
1 = Spring
2 = Winter
3 = Other (Specify) _____

3. COLEOPTILE ANTHOCYANIN:

[1] 1 = Absent 2 = Present

4. JUVENILE PLANT GROWTH:

[2] 1 = Prostrate 2 = Semi-Erect 3 = Erect

5. PLANT COLOR: (boot stage)

[2]
1 = Yellow-Green
2 = Green
3 = Blue-Green

6. FLAG LEAF: (boot stage)

[2] 1 = Erect 2 = Recurved
[2] 1 = Not Twisted 2 = Twisted
[2] 1 = Wax Absent 2 = Wax Present

7. EAR EMERGENCE:

[1][4][0] Number of Days (Average)
[ ][ ] Number of Days Earlier Than * _____
Same As * _____
[0][2] Number of Days Later Than * Finley

**Relative to a PVPO-Approved Commercial Variety Grown in the Same Trial*

8. ANTHER COLOR:

[1] 1 = Yellow 2 = Purple

9

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9. PLANT HEIGHT: (from soil to top of head, excluding awns)

[0][9][2] cm (Average)

[ ][ ] cm Taller Than _____ *

Same As _____ *

[1][8] cm Shorter Than Finley *

10. STEM:

A. ANTHOCYANIN

[1] 1 = Absent 2 = Present

B. WAXY BLOOM

[1] 1 = Absent 2 = Present

C. HAIRINESS (last internode of rachis)

[1] 1 = Absent 2 = Present

D. INTERNODE

[1] 1 = Hollow 2 = Semi-Solid 3 = Solid

[5] Number of Nodes

E. PEDUNCLE

[1] 1 = Erect 2 = Recurved 3 = Semi-Erect

[2][8] cm Length

F. AURICLE

[1] Anthocyanin: 1 = Absent 2 = Present

[1] Hair: 1 = Absent 2 = Present

11. HEAD: (At Maturity)

A. DENSITY

[1]
1 = Lax
2 = Middense (Laxidense)
3 = Dense

B. SHAPE

[3]
1 = Tapering
2 = Strap
3 = Clavate
4 = Other (Specify) _____

C. CURVATURE

[1]
1 = Erect
2 = Inclined
3 = Recurved

D. AWNEDNESS

[4]
1 = Awnless
2 = Apically Awnletted
3 = Awnletted
4 = Awned

12. GLUMES: (At Maturity)

A. COLOR

[1]
1 = White
2 = Tan
3 = Other (Specify) _____

B. SHOULDER

[1]
1 = Wanting 2 = Oblique
3 = Rounded 4 = Square
5 = Elevated 6 = Apiculate
7 = Other (Specify) _____

C. SHOULDER WIDTH

[2]
1 = Narrow
2 = Medium
3 = Wide

D. BEAK

[1]
1 = Obtuse
2 = Acute
3 = Acuminate

E. BEAK WIDTH

[2]
1 = Narrow
2 = Medium
3 = Wide

F. GLUME LENGTH

[2]
1 = Short (ca. 7 mm)
2 = Medium (ca. 8 mm)
3 = Long (ca. 9 mm)

G. WIDTH

[2]
1 = Narrow (ca. 3 mm)
2 = Medium (ca. 3.5 mm)
3 = Wide (ca. 4 mm)

H. PUBESCENCE

[1]
1 = Not Present
2 = Present

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13. SEED:

A. SHAPE

[3] 1 = Ovate
2 = Oval
3 = Elliptical

B. CHEEK

[1] 1 = Rounded
2 = Angular

C. BRUSH

[2] 1 = Short
2 = Medium
3 = Long

[1] 1 = Not Collared
2 = Collared

D. CREASE

[1] 1 = Width 60% or less of Kernel
2 = Width 80% or less of Kernel
3 = Width Nearly as Wide as Kernel

[2] 1 = Depth 20% or less of Kernel
2 = Depth 35% or less of Kernel
3 = Depth 50% or less of Kernel

E. COLOR

[3] 1 = White
2 = Amber
3 = Red
4 = Other (Specify) _____

F. TEXTURE

[1] 1 = Hard
2 = Soft
3 = Other (Specify) _____

G. PHENOL REACTION (See Instructions)

[4] 1 = Ivory
2 = Fawn
3 = Light Brown
4 = Dark Brown
5 = Black

H. SEED WEIGHT

[3][5] g/1000 Seed (whole number only)

I. GERM SIZE

[2] 1 = Small
2 = Midsize
3 = Large

14. DISEASE: PLEASE INDICATE THE SPECIFIC RACE OR STRAIN TESTED

(0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Intermediate 4 = Tolerant)

[0]	Stem Rust (*Puccinia graminis* f. sp. *tritici*)	[2]	Leaf Rust (*Puccinia recondita* f. sp. *tritici*)
[2]	Stripe Rust (*Puccinia striiformis*)	[0]	Loose Smut (*Ustilago tritici*)
[0]	Tan Spot (*Pyrenophora tritici-repentis*)	[0]	Flag Smut (*Urocystis agropyri*)
[0]	Halo Spot (*Selenophoma donacis*)	[0]	Common Bunt (*Tilletia tritici* or T. *laevis*)
[0]	*Septoria nodorum* (Glume Blotch)	[2]	Dwarf Bunt (*Tilletia controversa*)
[0]	*Septoria avenae* (Speckled Leaf Disease)	[0]	Karnal Bunt (*Tilletia indica*)
[0]	*Septoria tritici* (Speckled Leaf Blotch)	[3]	Powdery Mildew (*Erysiphe graminis* f. sp. *tritici*)
[0]	Scab (*Fusarium* spp.)	[2]	"Snow Molds"
[0]	"Black Point" (Kernel Smudge)	[0]	Common Root Rot (*Fusarium*, *Cochliobolus* and *Bipolaris* spp.)
[0]	Barley Yellow Dwarf Virus (BYDV)	[0]	Rhizoctonia Root Rot (*Rhizoctonia solani*)
[0]	Soilborne Mosaic Virus (SBMV)	[0]	Black Chaff (*Xanthomonas campestris* pv. *translucens*).
[0]	Wheat Yellow (Spindle Streak) Mosaic Virus	[0]	Bacterial Leaf Blight (*Pseudomonas syringae* pv. *syringae*)
[0]	Wheat Streak Mosaic Virus (WSMV)	[1]	Other (Specify) Eyespot foot rot (Pseudocercosporella herpotrichoides)
[ ]	Other (Specify) _____	[ ]	Other (Specify) _____
[ ]	Other (Specify) _____	[ ]	Other (Specify) _____
[ ]	Other (Specify) _____	[ ]	Other (Specify) _____

15. INSECT: (0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Intermediate 4 = Tolerant)

PLEASE SPECIFY BIOTYPE (where needed)

[0]	Hessian Fly (*Mayetiola destructor*)	[ ]	Other (Specify) _____
[0]	Stem Sawfly (*Cephus* spp.)	[ ]	Other (Specify) _____
[0]	Cereal Leaf Beetle (*Oulema melanopa*)	[ ]	Other (Specify) _____

15. INSECT: (continued) (0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Intermediate 4 = Tolerant)

PLEASE SPECIFY BIOTYPE (Where Needed)

[0]	Russian Aphid (*Diuraphis noxia*)	[ ]	Other (Specify) _____
[0]	Greenbug (*Schizaphis graminum*)	[ ]	Other (Specify) _____
[0]	Aphids	[ ]	Other (Specify) _____

16. ADDITIONAL INFORMATION ON ANY ITEM ABOVE, OR GENERAL COMMENTS:

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EXHIBIT D. OPTIONAL SUPPORTING INFORMATION

Milling and Baking Quality:
Bauermeister has test weight less than Finley, Hatton, and Weston. Its kernel hardness (SK Hardness) is greater than Finley and Weston, but less than Hatton while its kernel weight (SK Weight) is less than Finley and Weston, but greater than Hatton. Flour yield of Bauermeister is less than Finley, but similar to Hatton and Weston. The milling quality (Mill Score) of Bauermeister is similar to Weston, but less than Finley and Hatton. The flour ash yield of Bauermeister is similar to Weston, and greater than Finely and Hatton. Its protein strength (Mixograph Abs) is less than Finley, but equal to Hatton and Weston. The mix time of Bauermeister is longer than Finley, Hatton and Weston. Its loaf volume is equal to Hatton and less than Finley and Weston. Crumb grain score for Bauermeister is higher than Finley and equal to Hatton and Weston (Table D1).

Table D1: Means, least significant difference (LSD), probability and number of pairwise comaparisons made (N) for various milling and baking characteristics between Masami (Bauermeister) and check varieties Finely, Hatton, and Weston.

COMPARISON	TEST WEIGHT	SK HARDNESS	SK WEIGHT	WHEAT PROTEIN	FLOUR YIELD	MILL SCORE
Bauermeister	61.3	75.2*	35.3	12.5	63.9	78.3
Finely	63.5*	71.8	36.9*	12.9	66.7*	82.9*
LSD	0.50	1.80	0.90	0.50	0.90	1.80
P-VALUE	<0.01	<0.01	<0.01	0.11	<0.01	<0.01
N	19	19	19	19	19	19
Bauermeister	60.9	70.9	35.6*	12.2	65.6	80.9
Hatton	63.7*	75.2*	31.1	12.4	66.9	83.7*
LSD	1.10	3.40	1.80	1.10	2.00	2.70
P-VALUE	<0.01	0.02	<0.01	0.61	0.17	0.05
N	8	8	8	8	8	8
Bauermeister	60.6	68.5*	36.0	11.5	65.9	81.9
Weston	62.7*	55.8	40.7*	12.8	64.6	82.2
LSD	1.70	4.80	1.60	2.00	2.40	4.10
P-VALUE	0.02	<0.01	<0.01	0.15	0.20	0.90
N	6	6	6	6	6	6

COMPARISON	FLOUR ASH	FLOUR PROTEIN	MIXOGRAPH ABS	MIX TIME	LOAF VOLUME	CRUMB GRAIN
Bauermeister	0.40	11.1	63.4	3.6*	878.0	5.4
Finely	0.37*	11.6*	64.2*	2.9	966.0*	4.3*
LSD	0.90	0.50	0.70	0.40	26.00	0.60
P-VALUE	<0.01	0.03	0.03	<0.01	<0.01	<0.01
N	19	19	19	19	19	19
Bauermeister	0.38	10.7	63.0	3.7*	866.0	5.0
Hatton	0.36*	11.0	62.8	2.8	892.0	4.3
LSD	0.02	1.20	1.20	0.80	60.00	1.50
P-VALUE	0.02	0.56	0.69	0.03	0.33	0.27
N	8	8	8	8	8	8
Bauermeister	0.37	10.1	62.0	4.0*	824.0	5.5
Weston	0.34	11.5	64.0	2.4	961*	3.5
LSD	0.03	2.00	2.80	0.70	132.00	2.30
P-VALUE	0.07	0.11	0.13	<0.01	0.04	0.08
N	6	6	6	6	6	6

* Significantly different at alpha = 0.05.

REPRODUCE LOCALLY. Include form number and edition date on all reproductions. FORM APPROVED - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

Application is required in order to determine if a plant variety protection certificate is to be issued *(7 U.S.C. 2421)*. The information is held confidential until the certificate is issued *(7 U.S.C. 2426)*.

1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
Washington State University Research Foundation	WA007939	Bauermeister

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP, and Country)*	5. TELEPHONE *(Include area code)*	6. FAX *(Include area code)*
Dr. Keith Jones, Director Washington State University Research Foundation 1610 NE Eastgate Blvd. (Mail Stop 1802) Pullman, WA 99163	(509) 335-4363	(509) 335-7237

7. PVPO NUMBER 200600245

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. **If no, please explain.** ☑ **YES** ☐ **NO**

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? **If no, give name of country.** ☑ **YES** ☐ **NO**

10. Is the applicant the original owner? ☑ **YES** ☐ **NO** **If no, please answer one of the following:**

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?
☐ **YES** ☐ **NO** **If no, give name of country**

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?
☐ **YES** ☐ **NO** **If no, give name of country**

11. Additional explanation on ownership *(Trace ownership from original breeder to current owner. Use the reverse for extra space if needed)*:

Bauermeister was developed by Dr. Stephen S. Jones, winter wheat breeder and geneticist at Washington State University. Washington State University's ownership interests are assigned to the Washington State University Research Foundation.

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.

2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.

3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

REPRODUCE LOCALLY. Include form number and date on all reproductions. Form Approved OMB NO 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

EXHIBIT F
DECLARATION REGARDING DEPOSIT

NAME OF OWNER (S)	ADDRESS *(Street and No. or RD No., City, State, and Zip Code and Country)*	TEMPORARY OR EXPERIMENTAL DESIGNATION
Washington State University Research Foundation	1610 NE Eastgate Blvd. (Mail Stop 1802) Pullman, WA 99163	WA007939
		VARIETY NAME Bauermeister
NAME OF OWNER REPRESENTATIVE (S)	**ADDRESS** *(Street and No. or RD No., City, State, and Zip Code and Country)*	**FOR OFFICIAL USE ONLY**
Keith Jones, Director Tom Kelly, Licensing Officer	1610 NE Eastgate Blvd. (Mail Stop 1802) Pullman, WA 99163	**PVPO NUMBER**

I do hereby declare that during the life of the certificate a viable sample of propagating material of the subject variety will be deposited, and replenished as needed periodically, in a public repository in the United States in accordance with the regulations established by the Plant Variety Protection Office.

Keith Jones
Signature

20 July 2006
Date

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